

ABSTRACT OF THE DISCLOSURE

A substrate processing apparatus that roughens the surface of a substrate through a dry etching method by covering the surface of the substrate to be processed with a plate provided with a number of opening portions. The plate is provided with the opening portions in such a manner that an open area ratio of the opening portions on the peripheral side is smaller than an open area ratio of the opening portions in the central portion when the plate is viewed in a plane. It is thus possible to form textures on the surface of the substrate efficiently and homogenously, which in turn makes it possible to manufacture highly efficient solar cells or the like at a low cost.